

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

September 26, 2018

David Thompson, PE
Thompson Engineering Consultants, Inc.
PO Box 65760
Albuquerque, NM, 87193

**RE: Mountainside Church Addition
Grading and Drainage Plan
Engineer's Stamp Date: 09/14/18
Hydrology File: J22D068**

Dear Mr. Thompson:

Based upon the information provided in your revised submittal received 09/20/2018, the Grading and Drainage Plan is approved for Building Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

Albuquerque

Please provide a Private Facility Drainage Covenant per Chapter 17 of the DPM for first flush pond prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

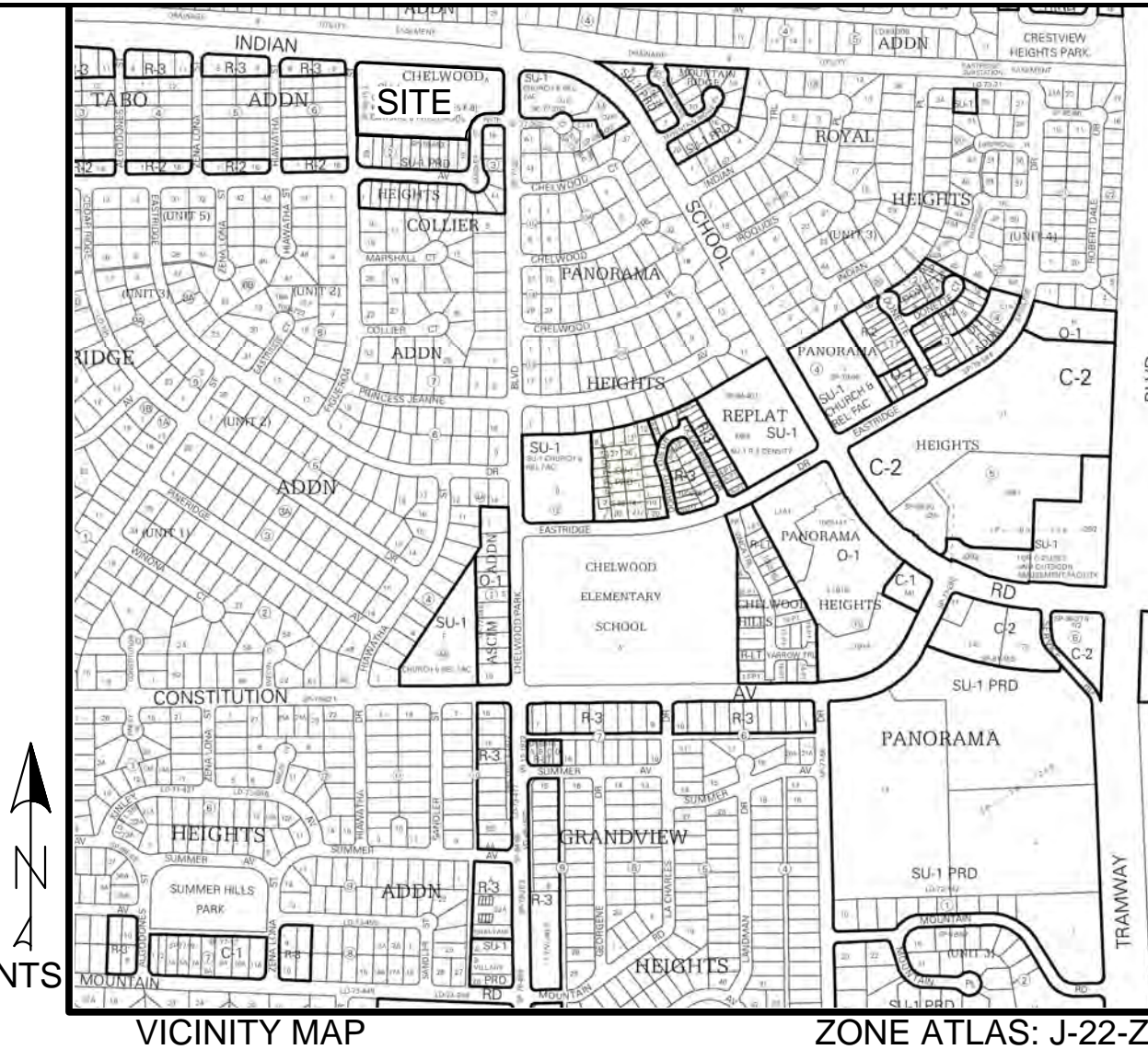
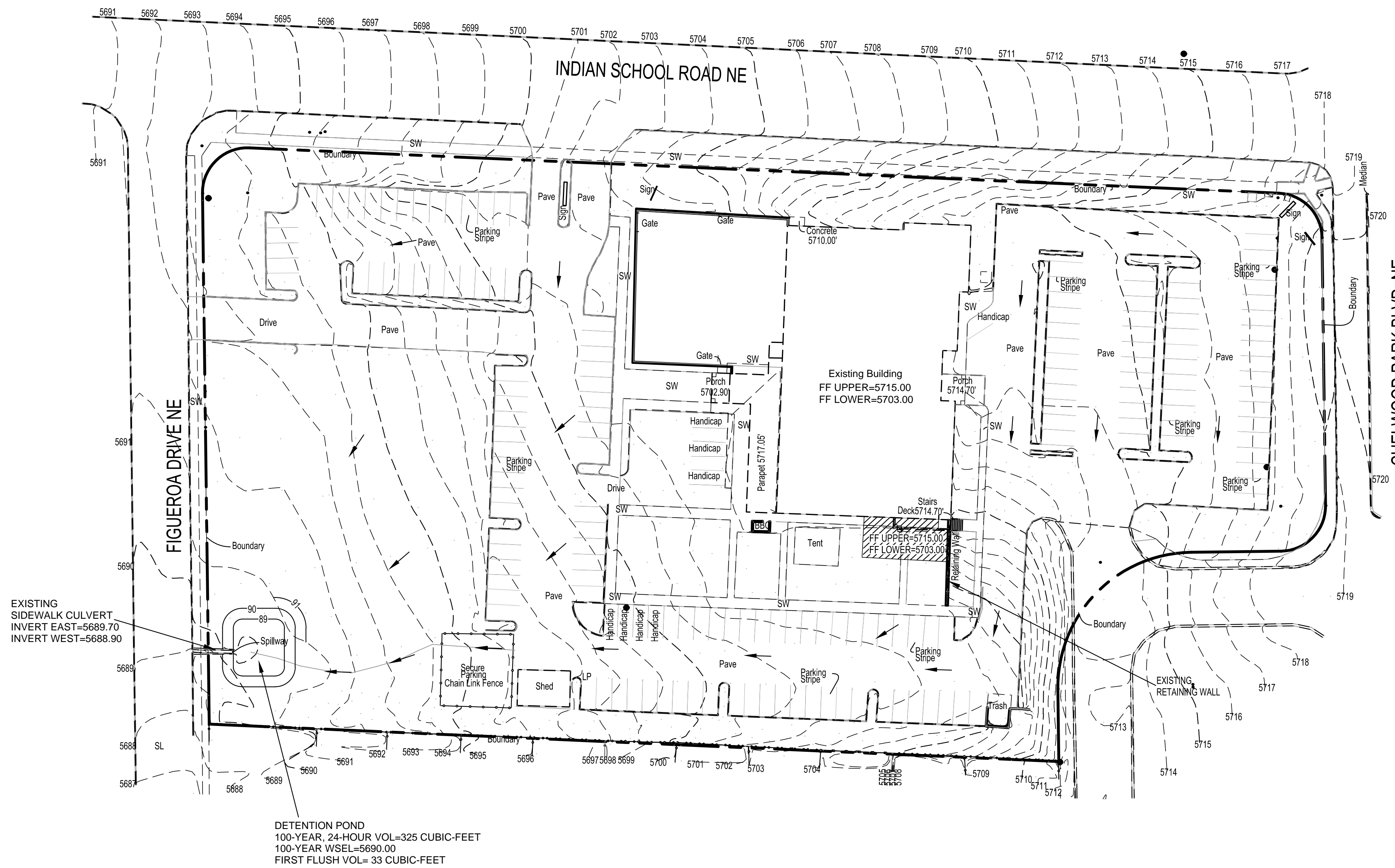
NM 87103

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

www.cabq.gov

Sincerely,

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



DRAINAGE PLAN:

LEGAL DESCRIPTION: TRACT A, CHELWOOD HEIGHTS
SITE AREA: 4.1948 ACRES (TOTAL SITE), 0.0264 ACRE (ADDITION ONLY)

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0357H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THE ADDITION TO THE CHURCH BUILDING IS IN ACCORDANCE WITH SETION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 24-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 4 SO THE 100-YEAR, 24-HOUR STORM EVENT IS 3.65 INCHES.

TRACT A IS LOCATED IN NORTHEAST ALBUQUERQUE, AT THE SOUTHWEST CORNER OF THE INDIAN SCHOOL ROAD/CHELWOOD PARK BOULEVARD INTERSECTION. CURRENTLY THE SITE HAS A CHURCH BUILDING, PARKING AREAS, AND LANDSCAPING. THE PROPERTY DRAINS FROM EAST TO WEST TO FIGUEROA DRIVE THROUGH A SIDEWALK CULVERT. THE AREA OF THE PLANNED ADDITION ALSO DRAINS FROM EAST TO WEST. THE EXISTING PEAK RUNOFF FROM THE BUILDING ADDITION UNDER EXISTING CONDITIONS IS 0.10 CFS AND 157 CUBIC FEET OF RUNOFF VOLUME DURING A 100-YEAR, 24-HOUR STORM. THERE ARE NO OFF- SITE FLOWS THAT REACH THE PROPERTY.

DEVELOPED DRAINAGE CONDITIONS:

THIS PROJECT INVOLVES THE CONSTRUCTION OF AN ADDITION IN THE SOUTHEAST CORNER OF AN EXISTING CHURCH BUILDING ON THE SITE. THE ADDITION WILL HAVE 100% IMPERVIOUS AREA. RUNOFF FROM THE ADDITION WILL DRAIN FROM EAST TO WEST VIA ASPHALT SWALES TO THE FIRST FLUSH POND ALONG THE WESTERN PROPERTY LINE ADJACENT TO FIGUEROA DRIVE. THE FIRST FLUSH VOLUME FROM THE ADDITION FOR A 0.44- INCH RAIN IS 33 CUBIC-Feet. A DETENTION POND WILL BE EXCAVATED AT THE UPSTREAM END OF THE SIDEWALK CULVERT. THE DETENTION POND WILL BE LARGE ENOUGH TO HOLD THE ADDITIONAL RUNOFF FROM THE ADDITION (325 CUBIC-Feet). ANY VOLUME OF RUNOFF GREATER THAT THE FIRST FLUSH VOLUME WILL BE ALLOWED TO DRAIN THROUGH THE EXISTING OVERFLOW SIDEWALK CULVERT TO FIGUEROA DRIVE. THE MAXIMUM DEPTH OF THE DETENTION POND FROM THE RUNOFF FROM THE BUILDING ADDITION WILL BE 1.0 FOOT.D

LEGEND

- MINOR CONTOUR
- MAJOR CONTOUR
- EXISTING BUILDING
- BUILDING ADDITION
- FLOW ARROW

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION				
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
ADDITION ONLY	0.0264	0.00	41.30	41.30	17.40	1.51	0.00	145	0.00	157	0.10
TOTAL RUNOFF	0.0264						0.00	145	0.00	157	0.10
PROPOSED CONDITIONS											
ADDITION ONLY	0.0264	0.00	0.00	0.00	100.00	2.64	0.01	253	0.01	325	0.14
TOTAL RUNOFF	0.0264						0.01	253	0.01	325	0.14
EXCESS PRECIP.		0.8	1.08	1.46	2.64	E _i (in)					
PEAK DISCHARGE		2.2	2.92	3.73	5.25	Q _{in} (cfs)					

WEIGHTED E (in) = (E_A)(%A) + (E_B)(%B) + (E_C)(%C) + (E_D)(%D)

V_{6-hr} (acre-ft) = (WEIGHTED E)(AREA)/12

V_{10day} (acre-ft) = V_{6-hr} + (A₀)(P_{10day} - P_{6-hr})/12

Q (cfs) = (Q_{in})(A_x) + (Q_{in})(A₀) + (Q_{in})(A_c) + (Q_{in})(A₀)

ZONE = 4

P_{6-hr} (in.) = 2.90

P_{24-hr} (in.) = 3.65

P_{10day} (in.) = 5.95

T

Thompson

E

Engineering

C

consultants, Inc.

tcenm@yahoo.com

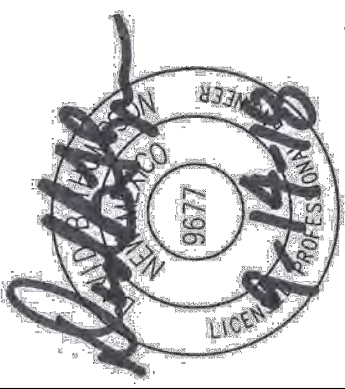
P.O. BOX 65760

ALBUQUERQUE, NM 87119-0193

PHONE: (505) 271-2199

FAX: (505) 656-9246

NO.	REVISION	BY	DATE	PROJECT:	DRAWN BY: DEM	CHECKED BY:	APPROVED BY:	FILE:



MOUNTAINSIDE CHURCH ADDITION

GRADING AND DRAINAGE PLAN

CITY/COUNTY REVIEW		DATE	SIGN-OFF
DEPARTMENT			
WASTEWATER MGMT. DIV.			
WATER SERVICES			
SUBDIVISION ENG.			
STREETS			
TRAFFIC			